

REMARKS

The Office Action dated March 26, 2004 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1-23 have been amended. Claim 24 has been added. No new matter has been added, and no new issues are raised which require further consideration and/or search. Claims 1-24 are submitted for consideration.

Claims 1-6, 9, 11 and 14-23 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,381,316 to Joyce et al. The rejection is traversed as being based on a reference that neither teaches nor suggests the novel combination of features clearly recited in independent claims 1, 19, 20 and 23. Claim 1, upon which claims 2-18 and 21-22 depend, recites a method for controlling service provision for customer terminals, used by customers for receiving services, in a telecommunications network including at least one server for offering services to the customers and control means for controlling the provision of services to customers. The method includes the steps of providing a service by transmitting information to the customer terminal and receiving information about service-specific payments in the control means from the customer terminal during delivery of the service. The method also includes the steps of informing the control means of the current price of the service and maintaining at least one control parameter whose value is dependent on at least accumulated charges for the service and accumulated sum of service-specific payments. The method further includes

the steps of comparing the value of at least one of said at least one control parameter to a first threshold and stopping the provision of the service when the value of the control parameter has reached the first threshold.

Claim 19 recites a method for controlling service provision for customer terminals, used by customers for receiving services, in a telecommunications network including at least one server for offering services to the customers, and control means for controlling the provision of services to customers. The method includes the steps of providing a service by transmitting a plurality of information flows to the customer terminal and receiving information about information-flow-specific payments in the control means from the customer terminal during delivery of the service. The method also includes the steps of informing the control means of the current price of the information flows and maintaining for each information flow at least one control parameter whose value is dependent on at least accumulated charges for the information flow and accumulated sum of information-flow-specific payments. The method further includes the steps of comparing, for each information flow, the value of at least one of said at least one control parameter to an information-flow-specific threshold and stopping said plurality of information flows if the control parameter value of at least one of the information flows reaches the threshold corresponding to it.

Claim 20 recites a method for controlling service provision for customer terminals, used by customers for receiving services, in a telecommunications network including at least one server for offering services to the customers and control means for controlling

the provision of services to customers. The method includes the steps of providing a service by transmitting a plurality of information flows to the customer terminal and receiving information about information-flow-specific payments in the control means from the customer terminal during delivery of the service. The method also includes the steps of informing the control means of the current price of the information flows and maintaining for each information flow at least one control parameter whose value is dependent on at least accumulated charges for the information flow and accumulated sum of information-flow-specific payments. The method further includes the steps of comparing, for each information flow, the value of at least one of said at least one control parameter to an information-flow-specific threshold and stopping only a single information flow when the control parameter value of said information flow reaches the corresponding threshold.

Claim 23 recites a system for controlling service provision to customer terminals, used by customers for receiving services, in a telecommunications network including at least one server for offering services to the customer, and control means for controlling the provision of the service to a customer. The system includes a first means for providing services by transmitting information to customer terminals and a second means for receiving information about service-specific payments from customer terminals during delivery of services in the control means. The system also includes a third means for informing the control means of the current price of the service. The control means includes first control means for maintaining for a service at least one control parameter

whose value is dependent on at least accumulated charges for the service and accumulated sum of service-specific payments , comparison means for comparing the value of a control parameter to a first predetermined threshold value and second control means for stopping the provision of the service when the value of the control parameter has reached the first threshold.

As will be discussed below, the cited prior art reference of Joyce et al. fails to disclose or suggest the elements of any of the presently pending claims.

Joyce et al. teaches the use of access cards for further access to advance communications services. Col. 2, lines 60-65. Joyce et al. discloses a CallManager subsystem and NetManager subsystem that take control of a call and deliver desired advanced communication service to a customer through a switch across the PSTN network. Col. 8, lines 28-34. A customer uses a PIN access card in the CallManager subsystem to access a computer telephony network by first dialing an access number provided to the customer upon purchasing or signing up for the access card. Col. 7, lines 63-67. The switch analyzes the access number and directs the call to a telephone call receiving device. Col. 8, lines 18-20.

The CallManager may include a billing module that takes care of the billing aspects of the system. The billing module may include a rating engine that can determine the monetary value of a transaction, where such determination may be based on, but is not limited to, the origin of the transaction, the destination of the transaction, the type of transaction and the time of day and/or week of the transaction. The rating engine can

provide for tariff setup and configuration information management for wireless network, for functionalities such as long distance calling, conferencing and message mapping. The billing module can also provide for real-time debit or charge of a customer's account after adding a service tax related to the transaction and the billing module may be integrated with a service or transaction provider's billing system. Col. 9, lines 6-24. The billing module is responsible for billing/charging by handling customer accounts. A Switch Manager and a Card Manager are also subsystems of the CallManager, wherein the Switch Manager is responsible for handling calls and the Card Manager is responsible for controlling distribution and usage of the PIN access cards. Col. 15, lines 64-66 and Col. 14, line 60-61.

The NetManager subsystem includes a server that can be a central office service enhancer that not only provides computer telephony service but can also provide additional telephony services through an existing switch without the need for a public telephone company, Internet provider or a wireless network to upgrade to a digital switch function. The server can also upgrade the switching capacity of a regional telephone company by scaling the deployment of the additional telephony and administrative services at the open-system, client-server level rather than at the switch level. Col. 9, lines 27-55.

When a call is to be charged using an access card, the Switch Manager receives the call initiated by the customer, requests the customer's PIN and transmits the PIN number to the Card Manager for authentication. Upon authenticating the PIN number,

the Card Manager retrieves the remaining account balance from a database and transmits the balance information to the Switch Manager. Col. 16, lines 4-26. The Switch Manager transmits the balance information to the customer and requests and accepts the out dialed number. At the end of the call, the Switch Manager advises the customer of the balance remaining in the account and presents the customer with the opportunity to make further calls. After the customer terminates a call, the Switch Manager communicates the remaining balance to the Card Manager and the Card Manager updates the account information. Col. 16, lines 26-48.

Applicants submit that Joyce et al. does not teach or suggest the elements clearly recited in claims 1, 19, 20 and 23. Claims 1, 19, 20 and 23, in part, recite receiving information about service-specific payments from the customer terminal during delivery of the service in the control means and maintaining at least one control parameter whose value is dependent on at least accumulated service charges for the service and accumulated sum of service-specific payments. According to Joyce et al., the Switch Manager keeps track of the accumulated charges for a call or for a plurality of calls and the Switch Manager compares the accumulated charges to the remaining account balance. As such, the method for settling service charges in the present invention is different from the method taught in Joyce et al. Specifically, Joyce et al. teaches receiving information about payments to an account (for example, increasing the balance of an account), wherein the payments in the account can be used for paying for any service/call by decrementing the account balance typically at the end of the service/call. However,

Joyce et al. does not teach or suggest receiving information about a service-specific payment during the delivery of the service.

Joyce et al. also does not teach or suggest that the control parameter is dependent on the accumulated sum of service-specific payments. Joyce et al. teaches that accumulated charges for a call/service is tracked and compared with the account balance (typically the account balance in the beginning of the call.) As such, Joyce et al. can be considered to either teach (1) that the control parameter corresponds to the accumulated charges for the service and the threshold corresponds to the account balance, or (2) that the control parameter corresponds to the account balance minus the accumulated charges for the service and the threshold is zero. Since the claimed invention, on the other hand, recites receiving information about service-specific payments and maintaining a control parameter whose value is dependent on accumulated charges for the service and accumulated service-specific payments, it is possible to keep track in the control means on how a specific service is paid for. This tracking enables, for example, changing the price of the service based on the user behaviors. The threshold value in the claimed invention can be any value selected by an operator. Additionally, since the control parameter is dependent on the accumulated charges and accumulated payments, payments may be sent from the user terminal at irregular intervals and they may include different amounts of money. For example, since in the claimed invention the customer terminal sends information about service-specific payments, the customer terminal may stop sending information and thus stop service-specific payments if the quality of the

service is poor. See page 19, lines 15-16. Continuing with our example, the control parameter of the claimed invention will reflect this non-payment at some point and the service delivery will be stopped when a threshold is reached. If, in our example, the quality of the service improves before the threshold is reached, and the user resumes full payment, the claimed invention enables continued delivery of the services, even though the user was allowed to pay less than full charges for the services for a period. As such, by properly setting the threshold and maintaining the control parameter value, the operation using the claimed invention can prevent the user from paying less than full payments for too long a time. Therefore, the claimed invention provides a flexible method of controlling the delivery of service.

Moreover, the claimed invention may be used for controlling delivery of simultaneous services for which the user receiving the services pays separately. Joyce et al. only teaches delivery of services (calls) one after the other. In fact, Joyce et al explicitly teaches away from simultaneous services by teaching that simultaneous account/PIN use will be terminated to reduce and prevent fraud. See Col. 16, lines 49-51. The teaching of Joyce et al. cannot therefore be extended to a number of services delivered to a user simultaneously. Therefore, Applicants respectfully assert that the rejection under 35 U.S.C. §102(e) should be withdrawn because Joyce does not teach or suggest each feature of claims 1 and 23 and hence, dependent claims 2-6, 9, 11 and 14-22 thereon.

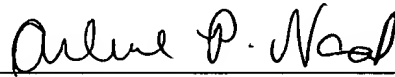
Claims 7-8, 10 and 12-13 were rejected under 35 U.S.C. 103 (a) as being unpatentable over Joyce et al. The rejection is traversed as being based on a reference that neither teaches nor suggests the novel combination of features clearly recited in independent claims 1, upon which claims 7-8, 10 and 12-13 depend. Therefore, Applicants respectfully assert that the rejection under 35 U.S.C. §103(a) should be withdrawn because Joyce does not teach or suggest each feature of claim 1 and hence, dependent claims 7-8, 10 and 12-13 thereon.

As noted previously, claims 1-24 recite subject matter which is neither disclosed nor suggested in the prior art references cited in the Office Action. It is therefore respectfully requested that all of claims 1-24 be allowed and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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